CLAIMS

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37.   (Previously Presented) A method for operating a wireless node, comprising:

activating the wireless node in a start up state;

automatically determining in the start up state a plurality of operating parameters for the wireless node;

configuring the wireless node based on the operating parameters;

activating a radio frequency (RF) system for the wireless node;

transitioning the wireless node to a learning state;

collecting operational data in the learning state and modifying the operating parameters based on the operational data;

reconfiguring the wireless node based on the modified operating parameters; and

after reconfiguring the wireless node, transitioning the wireless node to a normal operating state in response to determining the operational data is within predefined parameters.

38.   (Original)   The method of Claim 37, further comprising negotiating with a plurality of neighboring nodes in the start up state to determine the operating parameters.

39.   (Original)   The method of Claim 37, further comprising:

modifying a list of neighboring nodes in the learning state based on the operational data; and

modifying the operating parameters to account for the modified list of neighboring nodes.

40.   (Original)   The method of Claim 37, further comprising negotiating with the neighboring nodes to determine the initial set of operating parameters.

41.   (Original)   The method of Claim 37, further comprising collecting operational data in the normal operating state and transitioning back to the learning state in response to determining the operational data is outside the predefined parameters.

42.   (Original)   The method of Claim 37, further comprising transitioning from the normal operating state back to the learning state in response to a change in neighboring wireless topology.

43.   (Original)   The method of Claim 37, further comprising transitioning from the normal operating state back to the learning state in response to accepting a modification in operating parameters requested by a neighboring node.

44.   (Original)   The method of Claim 37, wherein the wireless node is a wireless router.

45.   (Previously Presented) The method of Claim 37, wherein the wireless node is a wireless router and neighboring wireless nodes are neighboring wireless routers.

46.   (Original)   The method of Claim 37, further comprising analyzing the operational data and optimizing the traffic engineering parameters based on the operational data.

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85.   (Previously Presented) A wireless node for wireless communications network, comprising:

computer implementable instructions encoded in at least one computer processable medium; and

the instructions operable upon processing to activate the wireless node in a start-up state, to automatically determine in the start-up state a plurality of operating parameters for the wireless node, to configure the wireless node based on the operating parameters, to activate a radio frequency (RF) system for the wireless node, to transition the wireless node to a learning state, to collect operational data in the learning state and modify the operating parameters based on the operational data, to reconfigure the wireless node based on the modified operating parameters, and, after reconfiguring the wireless node, to transition the wireless node to a normal operating state in response to determining the operational data is within predefined parameters.

86.   (Original)   The wireless node of Claim 85, the instructions operable upon processing to negotiate with a plurality of neighboring nodes in the start-up state to determine the operating parameters.

87.   (Original)   The wireless node of Claim 85, the instructions operable upon processing to modify a list of neighboring nodes in the learning state based on the operational data and to modify the operating parameters to account for the modified lists of neighboring nodes.

88.   (Original)   The wireless node of Claim 85, the instructions operable upon processing to negotiate with the neighboring nodes to determine the initial set of operating parameters.

89.   (Original)   The wireless node of Claim 85, the instructions operable upon processing to collect operational data in the normal operating state and to transition back to the learning state in response to determining the operational data is outside the predefined parameters.

90.   (Original)   The wireless node of Claim 85, the instructions operable upon processing to transition from the normal operating state back to the learning state in response to a change in the neighboring wireless topology.

91.   (Original)   The wireless node of Claim 85, the instructions operable upon processing to transition from the normal operating state back to the learning state in response to accepting a modification and operating parameters requested by a neighboring node.

92.   (Original)   The wireless node of Claim 85, wherein the wireless node is a wireless router.

93.   (Previously Presented) The wireless node of Claim 85, wherein the wireless node is a wireless router and neighboring wireless nodes are neighboring wireless routers.

94.   (Original)   The wireless node of Claim 85, the instructions operable upon processing to analyze the operational data and to optimize the traffic engineering parameters based on the operational data.

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